Inventors: Seidman and Théorêt
Serial No.: 09/288,344
Filed: April 8, 1999

APPENDIX A

Please amend the claims as follows:

1. (Twice amended) A method of optimizing therapeutic efficacy for treatment of an immune-mediated gastrointestinal disorder, comprising:

(a) administering a drug **providing 6-thioguanine** to a subject having said immune-mediated gastrointestinal disorder**[, wherein said drug provides 6-thioguanine to said subject]**; and

(b) determining a level of 6-thioguanine in said subject having said immune-mediated gastrointestinal disorder,

wherein a level of 6-thioguanine less than a level corresponding to about 230 pmol per $8x10^8$ red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject and

wherein a level of 6-thioguanine greater than a level corresponding to about 400 pmol per $8x10^8$ red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject.

7. (Twice amended) A method of reducing toxicity associated with treatment of an immune-mediated gastrointestinal disorder, comprising:

(a) administering a drug **providing 6-thioguanine** to a subject having said immune-mediated gastrointestinal disorder**[, wherein said drug provides 6-thioguanine to said subject]**;

(b) determining a level of 6-thioguanine in said subject having said immune-mediated gastrointestinal disorder; and

(c) determining a level of 6-methyl-mercaptopurine in said subject having said immune-mediated gastrointestinal disorder,

wherein a level of 6-thioguanine greater than about 400 pmol per $8x10^8$ red blood cells or a level of 6-methyl-mercaptopurine greater than about 7000 pmol per $8x10^8$ red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject, thereby reducing toxicity associated with said drug treatment of said immune-mediated gastrointestinal disorder.

19. (Twice amended) A method of optimizing therapeutic efficacy and reducing toxicity associated with treatment of an immune-mediated gastrointestinal disorder, comprising:

(a) administering a drug **providing 6-thioguanine** to a subject having said immune-mediated gastrointestinal disorder**[, wherein said drug provides 6-thioguanine to said subject]**;

(b) determining a level of 6-thioguanine in said subject having said immune-mediated gastrointestinal disorder; and

(c) determining a level of 6-methyl-mercaptopurine in said subject having said immune-mediated gastrointestinal disorder,

wherein a level of 6-thioguanine less than about 230 pmol per $8x10^8$ red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject, thereby increasing therapeutic efficacy,

wherein a level of 6-thioguanine greater than about 400 pmol per $8x10^8$ red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject, thereby reducing toxicity associated with said drug treatment of said immune-mediated gastrointestinal disorder, and

wherein a level of 6-methyl-mercaptopurine greater than about 7000 pmol per $8x10^8$ red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject, thereby reducing toxicity associated with said drug treatment of said immune-mediated gastrointestinal disorder.

30. (Twice amended) A method of optimizing therapeutic efficacy of treatment of a non-IBD autoimmune disease, comprising:

(a) administering a drug **providing 6-thioguanine** to a subject having said non-IBD autoimmune disease**[, wherein said drug provides 6-thioguanine to said subject]**; and

(b) determining a level of 6-thioguanine in said subject having said non-IBD autoimmune disease,

wherein a level of 6-thioguanine less than about 230 pmol per $8x10^8$ red blood cells indicates a need to increase the amount of 6-mercaptopurine drug subsequently administered to said subject and

wherein a level of 6-thioguanine greater than about 400 pmol per $8x10^8$ red blood cells indicates a need to decrease the amount of 6-mercaptopurine drug subsequently administered to said subject.

35. (Twice amended) A method of optimizing therapeutic efficacy and reducing toxicity associated with treatment of an immune-mediated gastrointestinal disorder, comprising:

(a) administering a drug **providing 6-thioguanine** to a subject having said immune-mediated gastrointestinal disorder**[, wherein said drug provides 6-thioguanine to said subject]**;

(b) determining a level of 6-thioguanine in said subject having said immune-mediated gastrointestinal disorder; and

(c) determining a level of 6-methyl-mercaptopurine in said subject having said immune-mediated gastrointestinal disorder,

wherein a level of 6-thioguanine less than about 230 pmol per $8x10^8$ red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject, thereby increasing therapeutic efficacy, and

wherein a level of 6-thioguanine greater than about 400 pmol per $8x10^8$ red blood cells or a level of 6-methyl-mercaptopurine greater than about 7000 pmol per $8x10^8$ red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject, thereby reducing toxicity associated with said drug treatment of said immune-mediated gastrointestinal disorder.

52. (Amended) A method of optimizing therapeutic efficacy of treatment of a non-IBD autoimmune disease, comprising:

(a) administering a drug **providing 6-thioguanine** to a subject having said non-IBD autoimmune disease**[, wherein said drug provides 6-thioguanine to said subject]**;

(b) determining a level of 6-thioguanine in said subject having said non-IBD autoimmune disease; and

(c) determining a level of 6-methyl-mercaptopurine in said subject having said non-IBD autoimmune disease,

wherein a level of 6-thioguanine less than about 230 pmol per $8x10^8$ red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject and

wherein a level of 6-thioguanine greater than about 400 pmol per $8x10^8$ red blood cells or a level of 6-methyl-mercaptopurine greater than about 7000 pmol per $8x10^8$ red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject, thereby reducing toxicity associated with said drug treatment of said non-IBD autoimmune disease.